

Amendments to the Claims

The current listing of claims replaces all previous versions of the claims.

Listing of Claims

1. (Currently Amended) A gimbal ball and socket joint assembly for a water vehicle outdrive system, said assembly comprising:

control means for generating a user input and directing the outdrive system to rotate freely in a select radial arcuate path so that the water vehicle can be propelled in a corresponding direction;

a gimbal ball and socket joint section operably connected to said control means and for cooperating therewith to selectively position the outdrive system corresponding to said user input; and

support means for assisting to maintain said gimbal ball and socket joint section at a substantially stable position during operating conditions, said support means being secured to a water vehicle transom and said gimbal ball and socket joint section respectively, said support means being selectively operable independently of said control means;

wherein said support means comprises

a bracket including a plurality of elongated members secured along the boat water vehicle transom and engageable with said gimbal ball and socket joint section, said plurality of members being spaced along the water vehicle transom and converging rearwardly toward the outdrive system;

wherein said gimbal ball and socket joint section further comprises

a steering gear operably connected to said control means and for cooperating therewith to direct the outdrive system between select positions.

2. (Currently Amended) The gimbal ball and socket joint assembly of claim 1, wherein said gimbal ball and socket joint section comprises:

an upper housing secured to the water vehicle transom and extending rearwardly therefrom, said upper housing comprising

a plurality of shafts and a beveled gear arrangement connected thereto and for transferring a first rotational motion of one of said plurality of shafts to a second rotational motion of another of said plurality of shafts wherein the first rotational motion is disposed substantially orthogonal to the second rotational motion.

3. (Currently amended) The gimbalball and socket joint assembly of claim 2, wherein said gimbalball and socket joint section further comprises:

a universal joint connected to another said plurality of shafts with said gimbalball and socket joint assembly for transmitting a non-linear rotation thereof so that the outdrive system can be rotated in clockwise and counter-clockwise directions.

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Original) The marine gimbalball and socket joint assembly of claim 1, wherein the radialarcuate path extends at least 180 degrees and about a plurality of quadrants.

8. (Currently Amended) A gimbalball and socket joint assembly for a water vehicle outdrive system, said assembly comprising:

control means for generating a user input and directing the outdrive system to rotate freely in a select radialarcuate path extending at least 90 degrees and about a quadrant so that the water vehicle can be propelled in a corresponding direction;

a gimbalball and socket joint section operably connected to said control means and for cooperating therewith to selectively position the outdrive system corresponding to said user input; and

support means for assisting to maintain said gimbalball and socket joint section at a substantially stable position during operating conditions, said support means being secured to a water vehicle transom and said gimbalball and socket joint section respectively, said support means being selectively operable independently of said control means;

wherein said support means comprises

a bracket including a plurality of elongated members secured along the boat transom and engageable with said ball and socket joint section, said plurality of members being spaced along the water vehicle transom and converging rearwardly toward the outdrive system.

9. (Currently amended) The gimbalball and socket joint assembly of claim 8, wherein said gimbalball and socket joint section comprises:

an upper housing secured to the water vehicle transom and extending rearwardly therefrom, said upper housing comprising

a plurality of shafts and a beveled gear arrangement connected thereto and for transferring a first rotational motion of one of said plurality of shafts to a second rotational motion of another of said plurality of shafts wherein the first rotational motion is disposed substantially orthogonal to the second rotational motion.

10. (Currently amended) The gimbalball and socket joint assembly of claim 9, wherein said gimbalball and socket joint section further comprises:

a universal joint connected to another said plurality of shafts with said gimbalball and socket joint assembly transmitting a non-linear rotation thereof so that the outdrive system can be rotated in clockwise and counter-clockwise directions.

11. (Currently amended) The gimbalball and socket joint assembly of claim 8, wherein said gimbalball and socket joint section further comprises:

a steering gear operably connected to said control means and for cooperating therewith to direct the outdrive system between select positions.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Currently amended) A gimbalball and socket joint assembly for a water vehicle outdrive system, said assembly comprising:

a trim plate;

lower gimbalball and socket joint section oriented in a substantially vertical position, said lower gimbalball and socket joint section having a central point;

a lower horizontal housing operably connected to said lower gimbalball and socket joint section;

a plurality of hydraulic cylinder shafts attached to said trim plate in such a manner such that said lower gimbalball and socket joint section can be moved to a verticalarcuate position while said central point of said lower gimbalball and socket joint section remains at a static location, said lower gimbalball and socket joint section raising said lower horizontal housing verticalarcuately away from a water surface for providing ground clearance when the water vehicle is out of the water;

wherein small verticalarcuate movements of said lower horizontal housing affect the attitude of the water vehicle when in motion;

a steering gear operably connected to said lower gimbalball and socket joint section in such a manner that said steering gear can horizontally adapt said lower gimbalball and socket joint section while said central point of said lower gimbalball and socket joint section remains at a static location; and

said lower gimbalball and socket joint section being repeatedly rotatable along a path extending at least 180 degrees defined between a forward position and a reverse position while said central point of said lower gimbalball and socket joint section remains at a static position.